



# Test Definition: BTR

Isoagglutinin Titer, Anti-B, Serum

## Overview

### Useful For

Evaluation of individuals with possible hypogammaglobulinemia

### Method Name

Hemagglutination

### NY State Available

Yes

## Specimen

### Specimen Type

Serum Red

### Shipping Instructions

Specimen must arrive within 10 days of collection.

### Specimen Required

**Supplies:** Sarstedt Aliquot Tube, 5 mL (T914)

**Collection Container/Tube:** Red top

**Submission Container/Tube:** Plastic vial

**Specimen Volume:** 2.5 mL

**Pediatric Volume:** 2 mL

**Collection Instructions:** Centrifuge and aliquot serum into a plastic vial.

### Forms

If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:

[-Kidney Transplant Test Request](#)

[-Benign Hematology Test Request Form](#) (T755)

### Specimen Minimum Volume

1 mL

### Reject Due To

|                 |    |
|-----------------|----|
| Gross hemolysis | OK |
|-----------------|----|

### Specimen Stability Information

| Specimen Type | Temperature         | Time    | Special Container |
|---------------|---------------------|---------|-------------------|
| Serum Red     | Ambient (preferred) | 4 days  |                   |
|               | Refrigerated        | 10 days |                   |
|               | Frozen              | 10 days |                   |

## Clinical & Interpretive

### Clinical Information

Isoagglutinins are antibodies produced by an individual that cause agglutination of red blood cells (RBCs) in other individuals. People possess isoagglutinins directed toward the A or B antigen absent from their own RBCs. For example, type A or O individuals will usually possess anti-B. The anti-B is formed in response to exposure to B-like antigenic structures found in ubiquitous non-red blood cell biologic entities (eg, bacteria).

Isoagglutinins present in the newborn are passively acquired from maternal circulation. Such passively acquired isoagglutinins will gradually disappear, and the infant will begin to produce isoagglutinins at age 3 to 6 months.

Isoagglutinin production may vary in patients with certain pathologic conditions. Decreased levels of isoagglutinins may be seen in patients with acquired and congenital hypogammaglobulinemia and agammaglobulinemia.

### Reference Values

Interpretation depends on clinical setting. No defined reference values.

### Interpretation

The result is reported as antiglobulin phase, in general representing IgG antibody. The result is the reciprocal of the highest dilution up to 1:1024 at which macroscopic agglutination (1+) is observed. Dilutions above 1:1024 are reported as greater than 1024.

### Cautions

Decreased isoagglutinin titers may be seen in normal older adults and in children aged 12 months or younger.

This test will not be performed for individuals with blood type B or AB.

### Clinical Reference

Cohn CS, Delaney M, Johnson ST, Katz LM, Schwartz J. eds: Technical Manual. 21st ed. AABB; 2023

## Performance

### Method Description

Two-fold serial dilutions of patient's serum are tested with appropriate type A and B erythrocytes. Antiglobulin phase of reactivity is examined. The result is the reciprocal of the highest dilution at which macroscopic agglutination (1+) is observed up to greater than 1024. Parallel titration of control antiserum is used for standardization.(Cohn CS, Delaney M, Johnson ST, Katz LM, Schwartz J. eds: Technical Manual. 21st ed. AABB; 2023)

**PDF Report**

No

**Day(s) Performed**

Monday through Friday, Sunday

**Report Available**

1 to 4 days

**Specimen Retention Time**

14 days

**Performing Laboratory Location**

Mayo Clinic Laboratories - Rochester Main Campus

**Fees & Codes****Fees**

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

**Test Classification**

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

**CPT Code Information**

86886

**LOINC® Information**

| Test ID | Test Order Name             | Order LOINC® Value |
|---------|-----------------------------|--------------------|
| BTR     | Isoagglutinin Titer, Anti-B | 34464-8            |

| Result ID | Test Result Name            | Result LOINC® Value |
|-----------|-----------------------------|---------------------|
| BTR       | Isoagglutinin Titer, Anti-B | 34464-8             |